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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,793	08/25/2003	Michael Chinander	592.001US1	2001

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EXAMINER

TADESSE, YEWEBDAR T

ART UNIT	PAPER NUMBER
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1734

DATE MAILED: 11/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/647,793

Applicant(s)

CHINANDER ET AL.

Examiner

Yewebdar T Tadesse

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 15-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/15/2003
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-14, drawn to a system for the manual application of a fluid material from a container, classified in class 118, subclass 692.
  - II. Claims 15-18, drawn to a method of applying fluid material from a container, classified in class 427, subclass 8.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the method can be performed by an application system adapted for use with robots.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification and their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Mark Litman on 10/25/2004 a provisional election was made with traverse to prosecute the invention of group I, claims 1-14.

Affirmation of this election must be made by applicant in replying to this Office action.

Claims 15-18 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-3, 7-9 and 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weston (US 5,348,585) in view of Lenhardt (US 5,462,199). As to claims 1 and 7-8, Weston discloses (see columns 10-11, lines 15-68 and 1-2 respectively, Fig 2 and Abstract) a system for the manual application of a fluid material in the linear pattern to a surface from a container holding the fluid (a hand-held liquid dispensing apparatus 20 applying pattern on the workpiece capable of forming linear pattern) comprising: container (cartridge 40) holding a fluid, the container having an application end (outlet 46) from which fluid is applied to the surface at volume flow rate that provides a volume /linear distance of the linear pattern (a known volume or rate of liquid dispensed, which is proportional to the rate of displacement of the outlet with respect to the workpiece, see Abstract), a speed indicator that provides a signal of the relative speed between the application end and the surface (the combination of a pantograph structure mechanism providing feedback signal proportional to the speed of the outlet with respect to the workpiece, see column 10, lines, starting line 37) and a microprocessor (a microcomputer 74). Weston further discloses the use of a control means (microcomputer 74) controlling the driving motor of a piston 50 and a feed back signal indicating the speed of the outlet to accurately dispense known volumes of liquid onto the receiving surface of the workpiece. Weston's device also controls the

transitional displacement of the piston within a container (cartridge) in relation to the rate of change in displacement of the outlet to dispense desired volume. Weston lacks teaching a microprocessor controlling the pressure of the system and a controllable pressure that causes pressure in the container. However, it is well known in the art in the system for applying liquid material to control the pressure of the container to apply predetermined amount of coating material; for instance - Lenhardt discloses an apparatus for discharging pasty substances having a container in which a piston is slidably guided (capable of increasing and decreasing flow by increasing and decreasing pressure respectively), wherein the pressure of the substance within the container 1 is controlled by using pressure sensors in communication with controller 44. Lenhardt's apparatus combines the container having piston (plunger), with a pressure sensor to directly determine (see column 3-4, lines 57-67, 1-22 respectively) the pressure in the substance to be metered rather than the force exerted by the piston (displacement of the piston member) at the location near the nozzle or applicator. It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the capability of controlling the pressure in Weston device to accurately control the metering rate as taught by Lenhardt.

As to claims 2-3, Weston's device discloses a hand-held dispensing apparatus moving to form a pattern on the workpiece (see column 10, lines 21-27).

Regarding claim 9, Weston's device as modified is capable of comparing a measured speed and measured liquid volume flow rate to at least two values representing high and low tolerance limits.

As to claims 10-11, Weston and Lenhardt are recited for same reasons discussed above for claim 1. Weston lacks teaching a microprocessor receiving signals regarding conditions in the environment of the system. Lenhardt discloses (see column 6, lines 20-29) temperature sensor in communication with a controller, wherein the microprocessor (controller) controls the pressure in relation to the measured temperature with use of stored empirical values. It would have been obvious to one of ordinary skill in the art at the time the invention was made to receive signals regarding conditions in the environment (such as temperature) in Weston's device to adjust substances viscosity, which influence the metering accuracy as taught by Lenhardt. Lenhardt discloses a control system adjusting pressure and capable of setting the controllable pressure in the container at constant level (applying predetermined pressure or constant pressure, see column 5, lines 25-30 and column 10, 20-26).

As to claims 12-13, Weston's device discloses a hand-held dispensing apparatus moving to form a pattern on the workpiece (see column 10, lines 21-27).

9. Claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weston (US 5,348,585) in view of Lenhardt (US 5,462,199) as applied to claims 1 and 10 above, and further in view of Holder et al (US 4,829,793). Weston lacks teaching a speed indicator comprising a wheel that rotates along the linear path on the surface. Holder et al discloses (see Fig 1 and column 5, lines 1-18) a speed indicator (tachometer 20 having wheel). It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the pantograph structure with a speed

indicator having a wheel in Weston to easily produce the desired pulse signal by a tachometer having a simplified structural mechanism.

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weston (US 5,348,585) in view of Lenhardt (US 5,462,199) as applied to claim 1 above, and further in view of Price (US 4, 922,852). Weston discloses (see Abstract column 10, lines 48-49 and Fig 2) the use of microprocessor (microcomputer74) and feed back digital or analog signal to dispense the desired rate of liquid. However lacks teaching data of liquid flow rate or volume provided in memory in the microprocessor. Price discloses (see column 9, lines 31-62) a microprocessor including all necessary program and data memory. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include appropriate data of the flow rate or volume stored in the memory of the microprocessor (microcomputer) in the Weston device to achieve the desired control capability of the dispensing system.

11. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weston (US 5,348,585) in view of Lenhardt (US 5,462,199) as applied to claim 1 above, and further in view of Bretmersky et al (US 5,687,092). Weston as modified lacks teaching the application of a bead and manual input to the microprocessor indicating the acceptable bead size. Bretmersky et al discloses I/O devices 40 in communication with the microprocessor (CPU 50) initiating different modes of operation; for instance I/O used to enter information relating to the bead size the material and to display error

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signals. It would have been obvious to one of ordinary skill in the art at the time the invention was made to manually enter information regarding bead size in Weston device as modified to apply the desired flow of material on the substrate.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yewebdar T Tadesse whose telephone number is (571) 272-1238. The examiner can normally be reached on Monday-Friday 8:00 AM-4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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